SERVICE DATA
FILE NO.110-397

032

TOSHIBA

STEREO RADIO CASSETTE RECORDER

RT-6015

SPECIFICATIONS

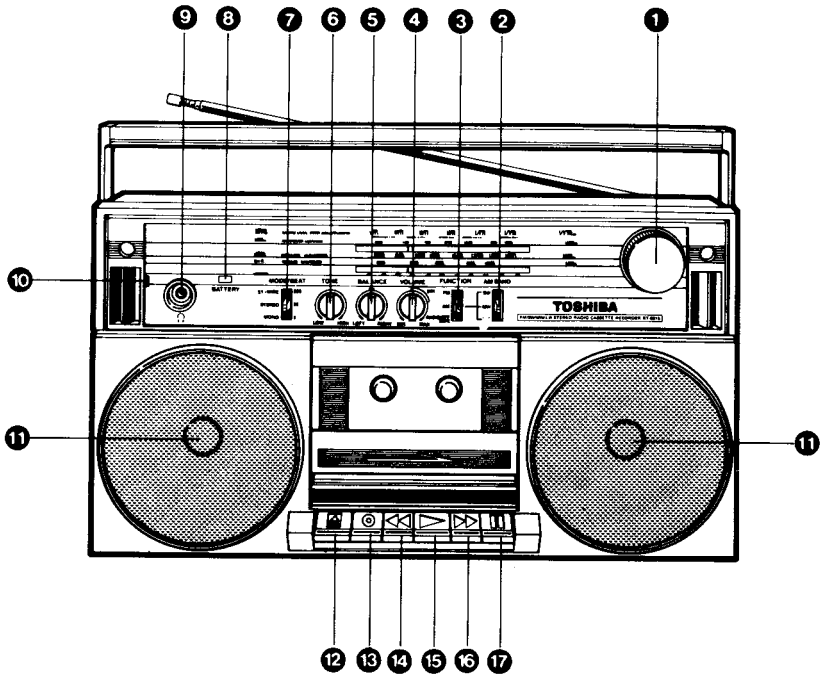
Cassette tape used:	C-30, C-60, C-90
Tape speed:	4.8 cm/sec.
Track system:	Four-track, two-channel stereophonic
Recording system:	AC bias (65 kHz)
Erasing system:	Multipolar magnet erasing
Frequency response:	60 Hz to 10 kHz
Receiving frequency:	FM: 88 MHz to 108 MHz SW: 5.9 MHz to 15.4 MHz MW: 526.5 kHz to 1606.5 kHz LW: 145 kHz to 270 kHz
Intermediate frequency:	FM: 10.7 MHz LW, MW, SW: 460 kHz
Antenna:	FM, SW: telescopic antenna LW, MW: ferrite-core antenna
Speakers:	120 mm (dia.) dynamic x 2
Jacks:	[MIC] jack x 2 Impedance 200 ohm to 2K ohm [REC/PB] jack x 1 [PHONES] jack x 1
Power supply:	AC 220V – 240V, 50 Hz DC 9V IEC R20 ("D" size) x 6
Power consumption:	13W
Dimensions (W x H x D):	400 x 228 x 102.5 (mm)
Weight:	2.32 kg (without batteries)

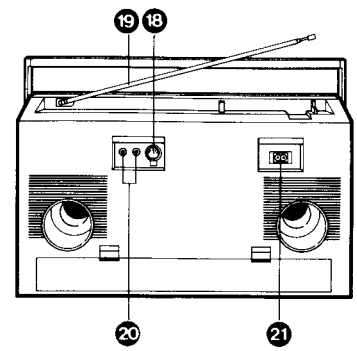
Specifications are subject to change without notice.

S/K-TE, TU, R-TU S/K-IT

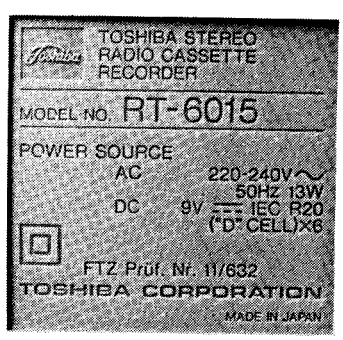
PRINTED IN JAPAN 22905392 Feb., 1985 Ⓑ

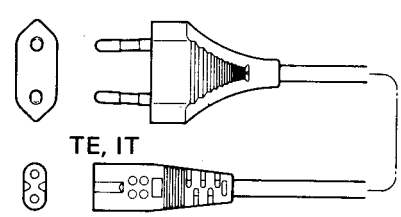
1. OPERATING CONTROLS

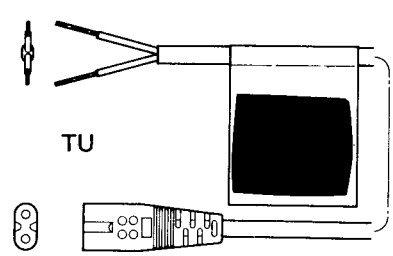




❶ **Tuning Knob**
❷ **[AM BAND] Selector**
❸ **[FUNCTION] Selector**
Note: RADIO OFF/TAPE position: This unit remains connect to mains supply in the RADIO OFF/TAPE position. Disconnect the power cord when the unit is not going to be used for a long time.
❹ **[VOLUME] Control**
❺ **[BALANCE] Control**
❻ **[TONE] Control**
❼ **[MODE/BEAT] Selector**
❽ **[BATTERY] Indicator**
❾ **[PHONES] Jack**
❿ **Built-in Microphone**
⓫ **Speakers**
⓬ **[EJECT/STOP] Key**
⓭ **[ONE TOUCH RECORD] Key**
⓮ **[REW] Key**
⓯ **[PLAY] Key**
⓰ **[FF] Key**
⓱ **[PAUSE] Key**
⓲ **[REC/PB] Jack**
⓳ **Telescopic Antenna**
⓴ **[MIC] Jacks**
㉑ **[AC POWER] Socket**







2. DISASSEMBLY INSTRUCTIONS

FRONT CABINET REMOVAL

1. Remove the Tuning Knob (A).
2. Open the cassette lid by pressing the Eject/Stop Button
3. Unscrew five screws (B), (C).
4. Separate the Front Cabinet from the Back Cabinet.
5. Reassemble in the reverse order.

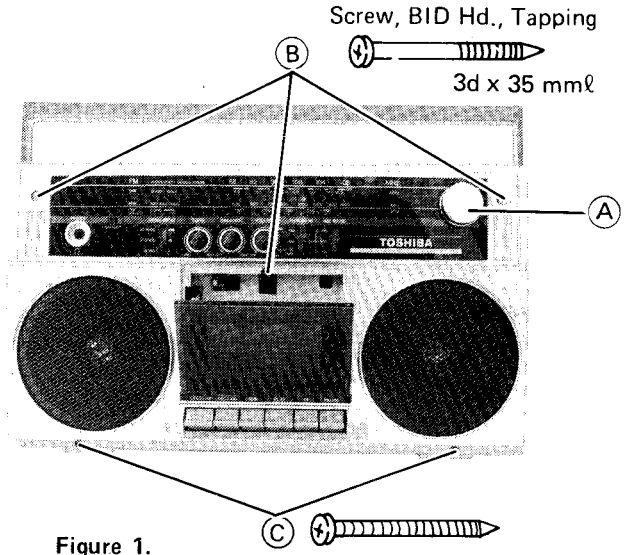


Figure 1.

EACH ASSEMBLY PART REMOVAL

1. Follow the instructions for Front Cabinet Removal.
2. Each assembly part has no retaining screws, it can be separated from the Back Cabinet.
3. Reassembly in the reverse order.

3. HANDLE REMOVAL

1. Bring down the handle in the arrow direction as illustrated in Figure 2.
2. Remove the handle with a pliers as illustrated in Figure 3.

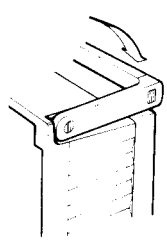


Figure 2.

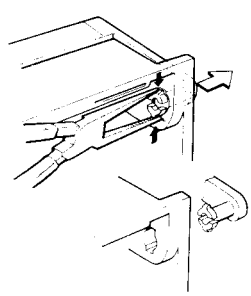


Figure 3.

4. METHOD OF P.R.C. REPAIRING

Cut defective printed-circuit resistor off with knife. See Figure 4. Solder a replacement resistor (See replacement resistor parts list) on the opposite side of printed-circuit board. See Figure 5.

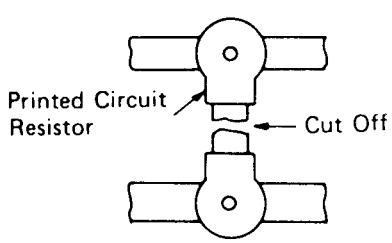


Figure 4.

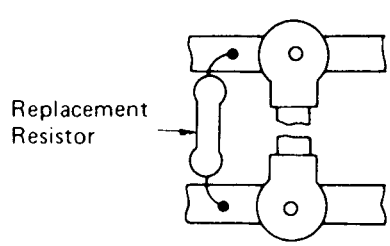
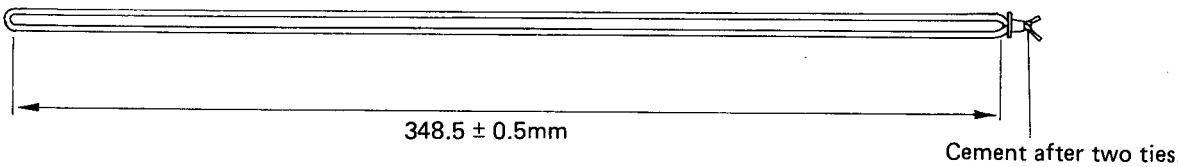
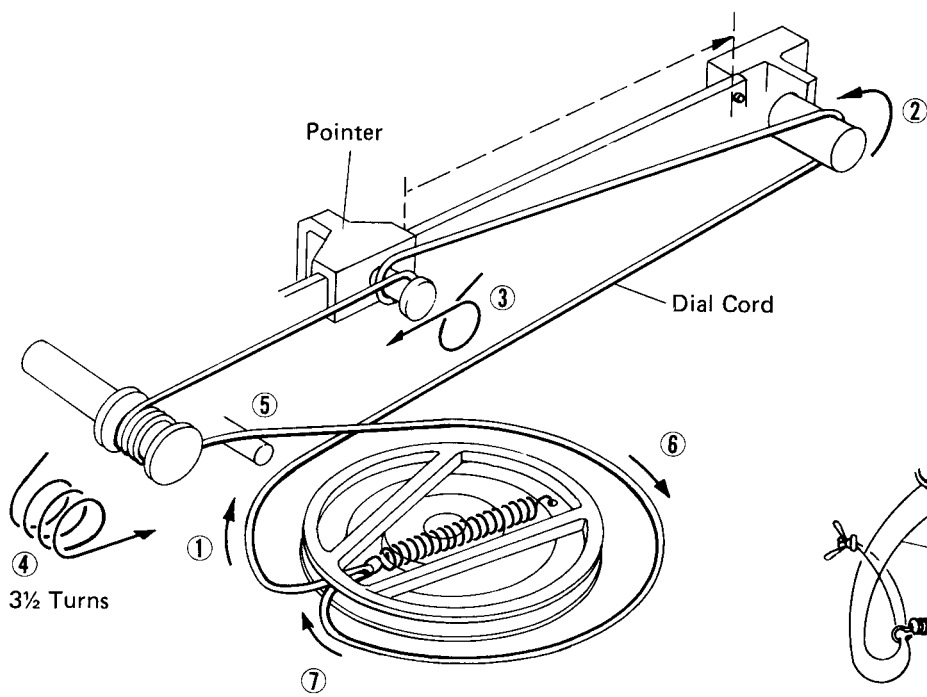


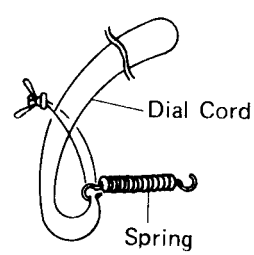
Figure 5.

5. DIAL CORD RESTRINGING

1. Tight up the dial cord for the designated length, and cement after two ties.
2. Hook the dial cord to the spring and pass it through the opening of the drum from the inside.
3. Turn the variable capacitor fully clockwise and mount the drum onto it.
   (To prevent the variable capacitor from damage, slightly return it in the opposite direction and fasten the dial cord securing it with hand.)
4. Wind the dial cord in numerical order as illustrated.
5. Turn the variable capacitor fully counterclockwise and set the pointer to the "0" position in the dial scale.







Dial Cord Connection

Figure 6.

6. ALIGNMENT INSTRUCTIONS

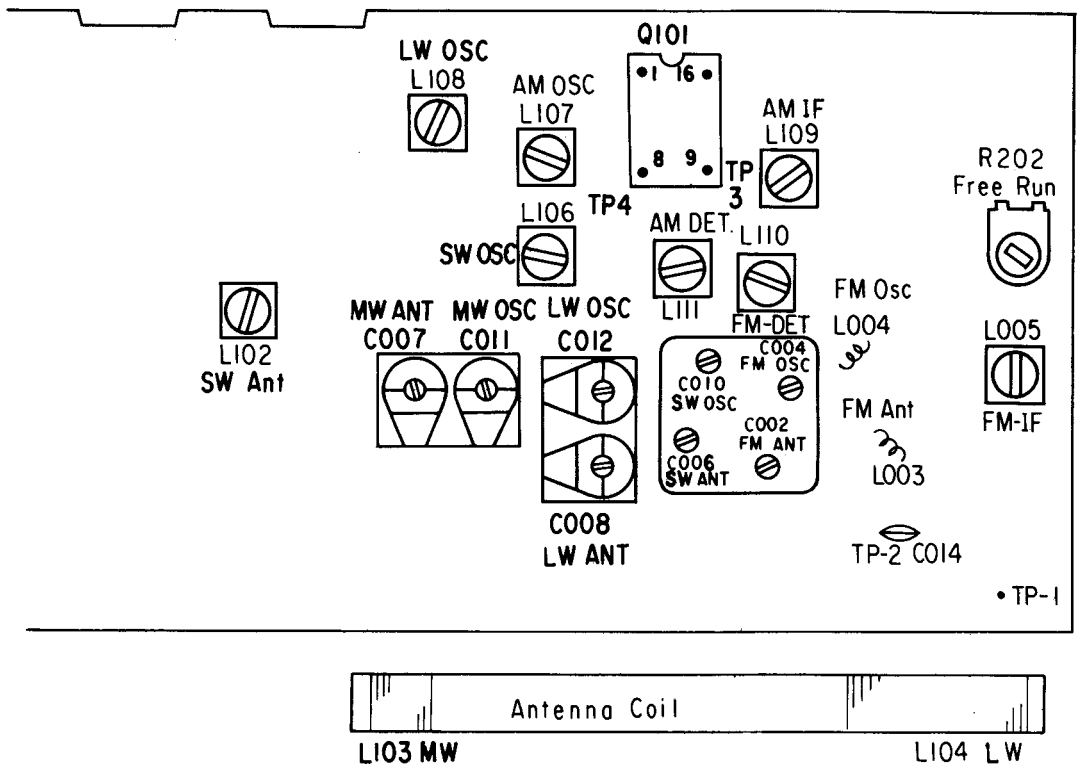


Figure 7.

TEST EQUIPMENT

1. Signal generator with a frequency range of at least from 140 kHz to 1670 kHz AM.
2. Oscilloscope with a side range amplifier of approximately 100 kHz.
3. Test loop – a coil of any size wire, one turn or more. (LW & MW)
4. A 30 ohm dummy antenna. (SW)
5. VTVM

AM ALIGNMENT

1. Turn on the AM signal generator and the VTVM allowing a fifteen-minute warm-up period.
2. Using the test loop across the output of the signal generator, inductively connect the signal generator to the radio.
3. Connect the VTVM across the voice coil or a 8 ohm dummy load.
4. Set signal generator frequency as listed in ALIGNMENT CHART and maintain a sufficient output level to provide an indication on VTVM.
5. Set volume control at mid-position.
6. Proceed as outlined in the IF-LW, MW and SW ALIGNMENT CHART.

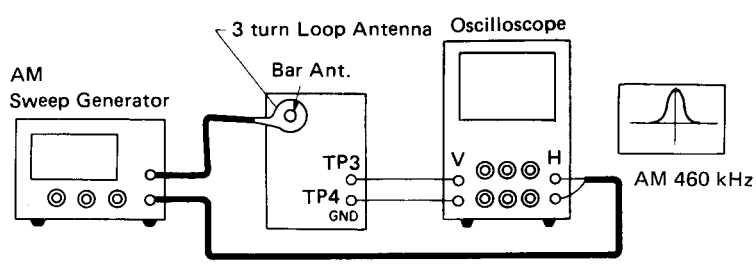


Figure 8.

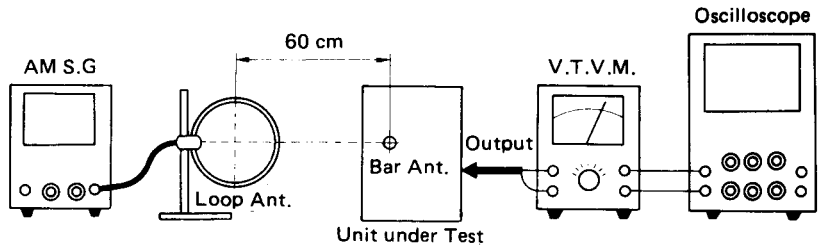


Figure 9.

MW ALIGNMENT CHART

Band	Step	Signal Generator Frequency	Radio Dial Setting	Adjustment	Remarks
IF	1	460 kHz	Tuning Gang Fully Counter-clockwise (Lowest Frequency)	L109, L111	Adjust for maximum indication.
MW	2	510 kHz	Tuning Gang Fully Counter-clockwise (Lowest Frequency)	OSC. Coil L107 (MW)	Adjust for maximum indication.
	3	1650 kHz	Tuning Gang Fully clockwise (Highest Frequency)	OSC. Trim. C011	Adjust for maximum indication.
	4	Repeat steps 2 and 3 as required.			
	5	600 kHz	Tune to Signal.	Ant. Coil L103 (MW)	Adjust for maximum indication.
	6	1400 kHz	Tune to Signal.	Ant. Trim. C007	Adjust for maximum indication.
	7	Repeat steps 5 and 6 as required.			

LW ALIGNMENT CHART

Band	Step	Signal Generator Frequency	Radio Dial Setting	Adjustment	Remarks
LW	1	142 kHz	Tuning Gang Fully Counter-clockwise (Lowest Frequency)	OSC. Coil L108	Adjust for maximum indication.
	2	280 kHz	Tuning Gang Fully Clockwise (Highest Frequency)	OSC. Trim. C012	Adjust for maximum indication.
	3	Repeat steps 1 and 2 as required.			
	4	142 kHz	Tune to Signal.	Ant. Coil L104	Adjust for maximum indication.
	5	280 kHz	Tune to Signal.	Ant. Trim. C008	Adjust for maximum indication.
	6	Repeat steps 4 and 5 as required.			

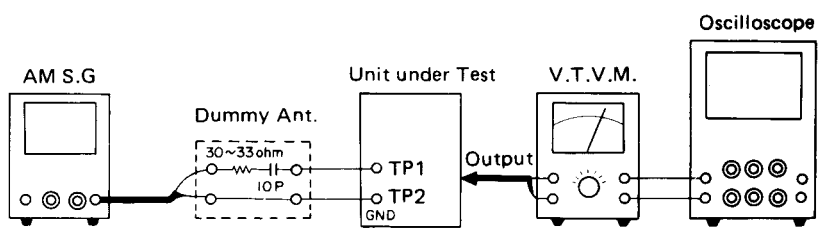


Figure 10.

SW ALIGNMENT CHART

Band	Step	Signal Generator Frequency	Radio Dial Setting	Adjustment	Remarks
SW	1	5.75 MHz	Tuning Gang Fully Counter-clockwise (Lowest Frequency)	OSC. Coil L106	Adjust for maximum indication.
	2	16 MHz	Tuning Gang Fully Clockwise (Highest Frequency)	OSC. Trim. C010	Adjust for maximum indication.
	3	Repeat steps 1 and 2 as required.			
	4	6.5 MHz	Tune to Signal.	Ant. Coil L102	Adjust for maximum indication.
	5	14 MHz	No Adjustment	Ant. Trim. C006	Adjust for maximum indication.
	6	Repeat steps 4 and 5 as required.			

FM-IF ALIGNMENT

1. Set the select switch to FM position.
2. Turn on both sweep generator and oscilloscope, and allow a fifteen-minute warm-up period.
3. Connect the RF SWEEP SIGNAL OUTPUT from the signal generator through the loop antenna to the receiver.
4. Connect the oscilloscope vertical input directly to the test point TP3 and connect the shielded lead to the test point E or chassis ground.
5. Connect the SWEEP VOLTAGE OUTPUT of the sweep generator to the oscilloscope.
6. Proceed as outlined in the FM-IF ALIGNMENT CHART.

FM-IF ALIGNMENT CHART

Step	Signal coupling	Equip.	Tuning	Connection	Adjust. point	Pattern
1	Connect sweep generator output to a three-turn loop antenna of 10cm diameter.	Sweep generator of 10.7 MHz center freq. with 10.7 MHz marker.	Tuning Knob fully counter-clockwise (Lowest Frequency.)	Set scope for connecting output signal from TUN OUT to vertical axis of scope "V" and sweep generator output to horizontal axis "H".	L005 L110	Turn the IF Transformer L110 fully counterclockwise to obtain a single peak. Adjust coil L005 in order until the best single peak is obtained. Figure 12. Finally turn the coil L110 to obtain S curve. See Figure 13.

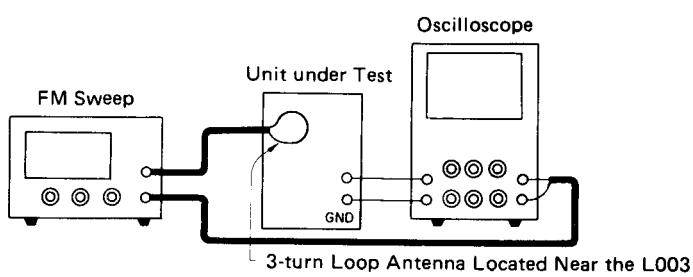


Figure 11.

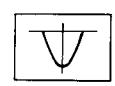


Figure 12.

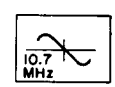


Figure 13.

FM-RF ALIGNMENT

1. Turn on the signal generator and the VTVM, and allow a fifteen-minute warm-up period.
2. Connect the signal generator output through a 75 ohm dummy antenna across FM ANT.
3. Connect the VTVM across the voice coil or a 8 ohm dummy load.
4. Set the volume control to mid-position.

5. Adjust the signal generator frequency as indicated in FM-RF ALIGNMENT CHART, and maintain a sufficient signal output level to provide a measurable indication.
6. Proceed as outlined in the FM-RF ALIGNMENT CHART.

FM-RF ALIGNMENT CHART

Step	Signal Generator	Radio Dial Setting	Adjustment	Remarks
1	87.5 MHz	Tuning Knob fully Counterclockwise (Lowest Frequency)	OSC. Coil L004	Adjust for maximum output indication.
2	108 MHz	Tuning Knob fully Clockwise (Highest Frequency)	OSC. Trim. C004	Adjust for maximum output indication.
3	Repeat steps 1 and 2 as required.			
4	90 MHz	Tune to signal	Ant. Coil L003	Adjust for maximum output indication.
5	106 MHz		Ant. Trim. C002	
6	Repeat steps 4 and 5 as required.			

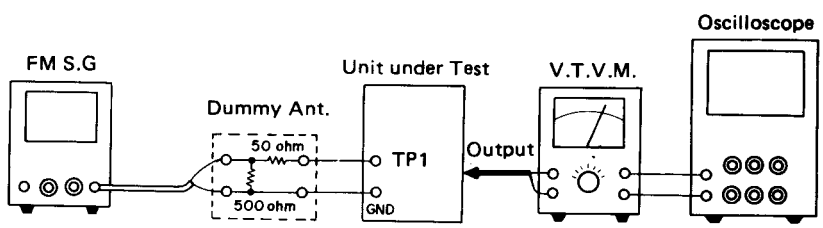


Figure 14.

FREE RUN FREQUENCY ALIGNMENT

Adjust R202 under no signal condition so as to obtain 38 kHz ±75 Hz.

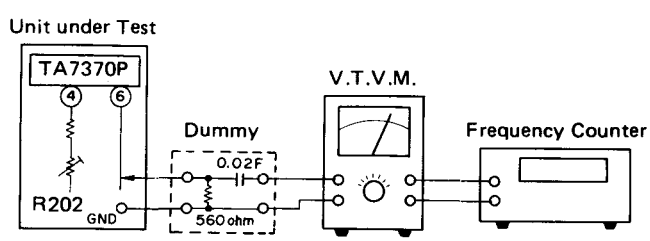


Figure 15.

CAUTION:

When realigning the FM Receiving Frequency, the highest end of the frequency range should not be move than 108 MHz and the lowest end of the frequency range should not be less than 87.5 MHz, in order to comply with FTZ regulations in West Germany.

RECORD/PLAYBACK HEAD ADJUSTMENT

A 6.3 kHz test tape must be used for this adjustment. Connect a VTVM or an oscilloscope to the headphones jack or speaker terminal and adjust the azimuth by using a phillips screwdriver to maintain the maximum output voltage.

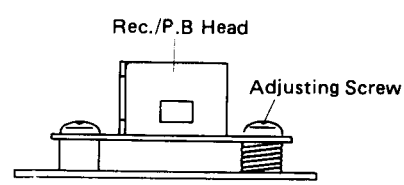
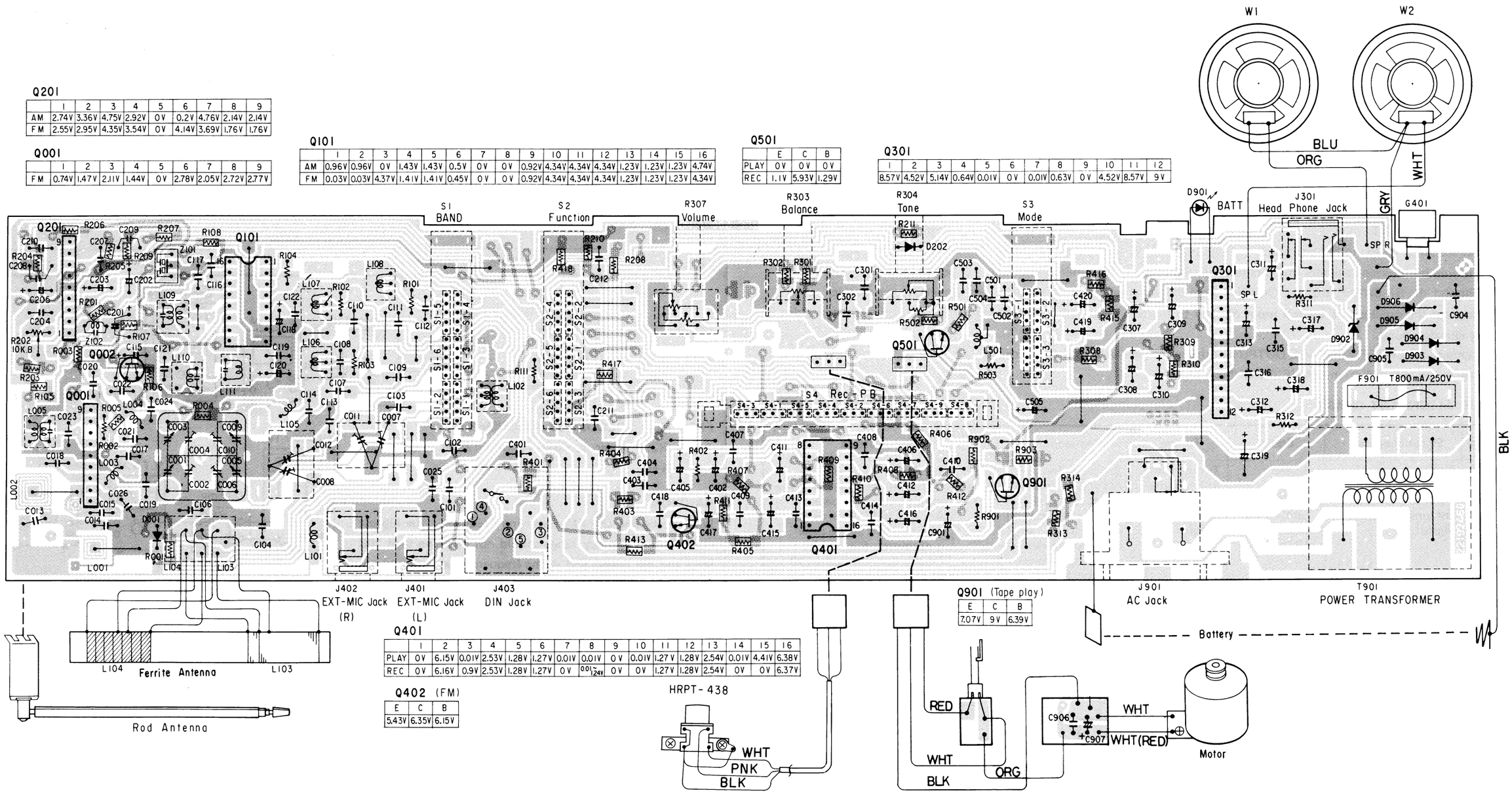


Figure 16. Record/Playback Head Adjustment

TAKE-UP/SUPPLY REEL TENSION

1. Insert cassette torque meter (HARTAK X-87 Torquette).
2. Press PLAY button and read torque meter. Torque should be 30 to 60 gcm.
3. Release PLAY button and press REWIND button. Torque should be 75 to 135 gcm. If necessary, clean take-up reel or drive belt with alcohol, or replace belt.

7. ELECTRICAL PARTS LOCATIONS



Q201

	1	2	3	4	5	6	7	8	9
AM	2.74V	3.36V	4.75V	2.92V	0V	0.2V	4.76V	2.14V	2.14V
FM	2.55V	2.95V	4.35V	3.54V	0V	4.14V	3.69V	1.76V	1.76V

Q001

	1	2	3	4	5	6	7	8	9
FM	0.74V	1.47V	2.11V	1.44V	0V	2.78V	2.05V	2.72V	2.77V

Q101

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
AM	0.96V	0.96V	0V	1.43V	1.43V	0.5V	0V	0V	0.92V	4.34V	4.34V	4.34V	1.23V	1.23V	1.23V	4.74V
FM	0.03V	0.03V	4.37V	1.41V	1.41V	0.45V	0V	0V	0.92V	4.34V	4.34V	4.34V	1.23V	1.23V	1.23V	4.34V

Q501

	E	C	B
PLAY	0V	0V	0V
REC	1.1V	5.93V	1.29V

Q301

1	2	3	4	5	6	7	8	9	10	11	12
8.57V	4.52V	5.14V	0.64V	0.01V	0V	0.01V	0.63V	0V	4.52V	8.57V	9V

Q401

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PLAY	0V	6.15V	0.01V	2.53V	1.28V	1.27V	0.01V	0.01V	0V	0.01V	1.27V	1.28V	2.54V	0.01V	4.41V	6.38V
REC	0V	6.16V	0.9V	2.53V	1.28V	1.27V	0V	0.01V (24V)	0V	0V	1.27V	1.28V	2.54V	0V	0V	6.37V

Q402 (FM)

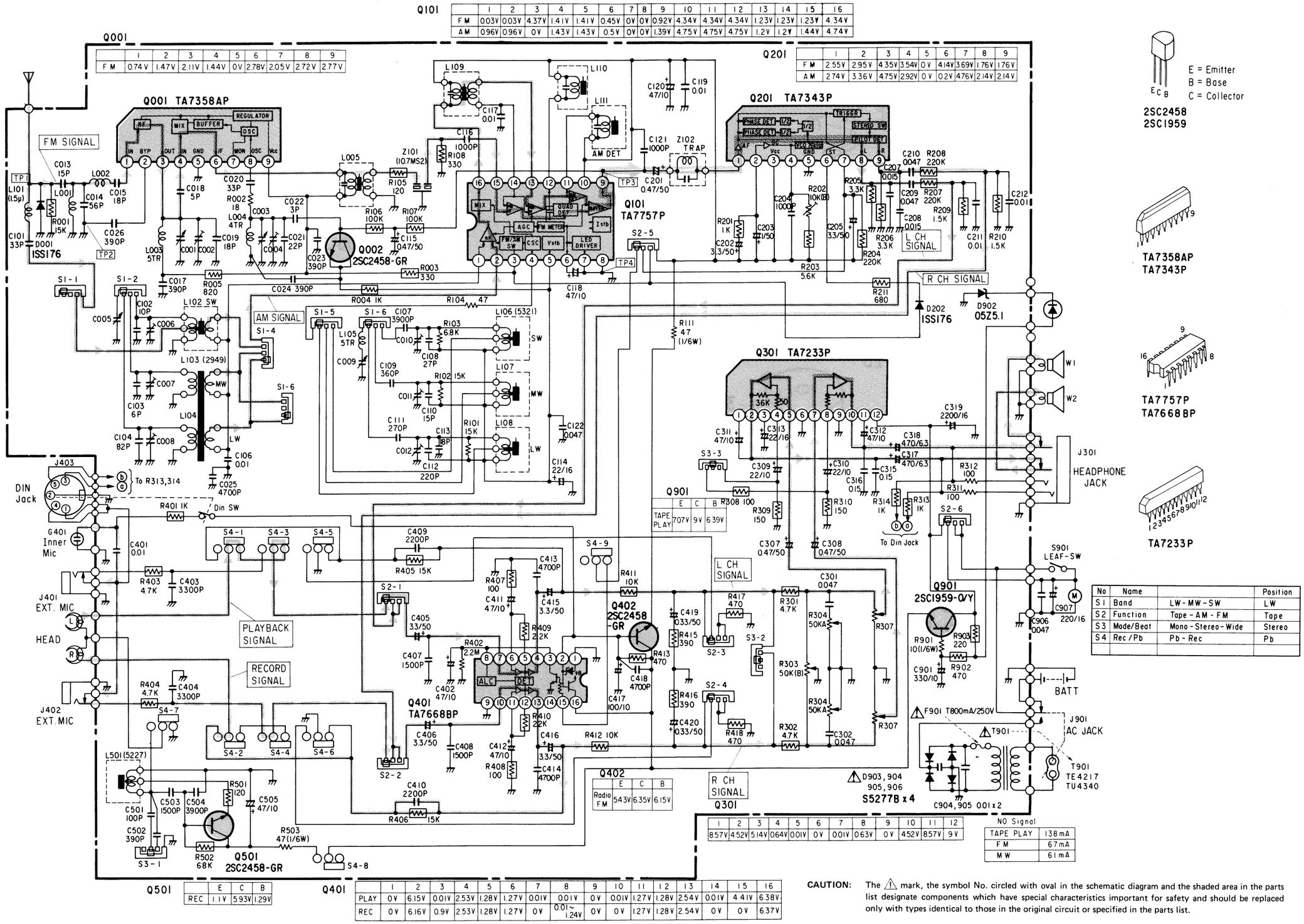
E	C	B
5.43V	6.35V	6.15V

Q901 (Tape play)

E	C	B
7.07V	9V	6.39V

Figure 17.

8. SCHEMATIC DIAGRAM



Q101

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
FM	0.03V	0.03V	4.37V	1.41V	1.41V	0.45V	0V	0V	0.92V	4.34V	4.34V	4.34V	1.23V	1.23V	1.23V	4.34V
AM	0.96V	0.96V	0V	1.43V	1.43V	0.5V	0V	0V	1.39V	4.75V	4.75V	4.75V	1.2V	1.2V	1.44V	4.74V

Q001

	1	2	3	4	5	6	7	8	9
FM	0.74V	1.47V	2.11V	1.44V	0V	2.78V	2.05V	2.72V	2.77V

Q201

	1	2	3	4	5	6	7	8	9
FM	2.55V	2.95V	4.35V	3.54V	0V	4.14V	3.69V	1.76V	1.76V
AM	2.74V	3.36V	4.75V	2.92V	0V	0.2V	4.76V	2.14V	2.14V

E = Emitter
B = Base
C = Collector

2SC2458
2SC1959

TA7358AP
TA7343P

TA7757P
TA7668BP

TA7233P

Q901

	E	C	B
TAPE PLAY	7.07V	9V	6.39V

Q402

	E	C	B
Radio FM	5.43V	6.35V	6.15V

Q301

1	2	3	4	5	6	7	8	9	10	11	12
8.57V	4.52V	5.14V	0.64V	0.01V	0V	0.01V	0.63V	0V	4.52V	8.57V	9V

Q501

	E	C	B
REC	1.1V	5.93V	1.29V

Q401

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PLAY	0V	6.15V	0.01V	2.53V	1.28V	1.27V	0.01V	0.01V	0V	0.01V	1.27V	1.28V	2.54V	0.01V	4.41V	6.38V
REC	0V	6.16V	0.9V	2.53V	1.28V	1.27V	0V	0.01~1.24V	0V	0V	1.27V	1.28V	2.54V	0V	0V	6.37V

No	Name		Position
S1	Band	LW-MW-SW	LW
S2	Function	Tape-AM-FM	Tape
S3	Mode/Beat	Mono-Stereo-Wide	Stereo
S4	Rec/Pb	Pb-Rec	Pb

NO Signal	
TAPE PLAY	138mA
FM	67mA
MW	61mA

CAUTION: The ⚠ mark, the symbol No. circled with oval in the schematic diagram and the shaded area in the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list.

Figure 18.

9-1. MECHANISM EXPLODED VIEW (UPPER)

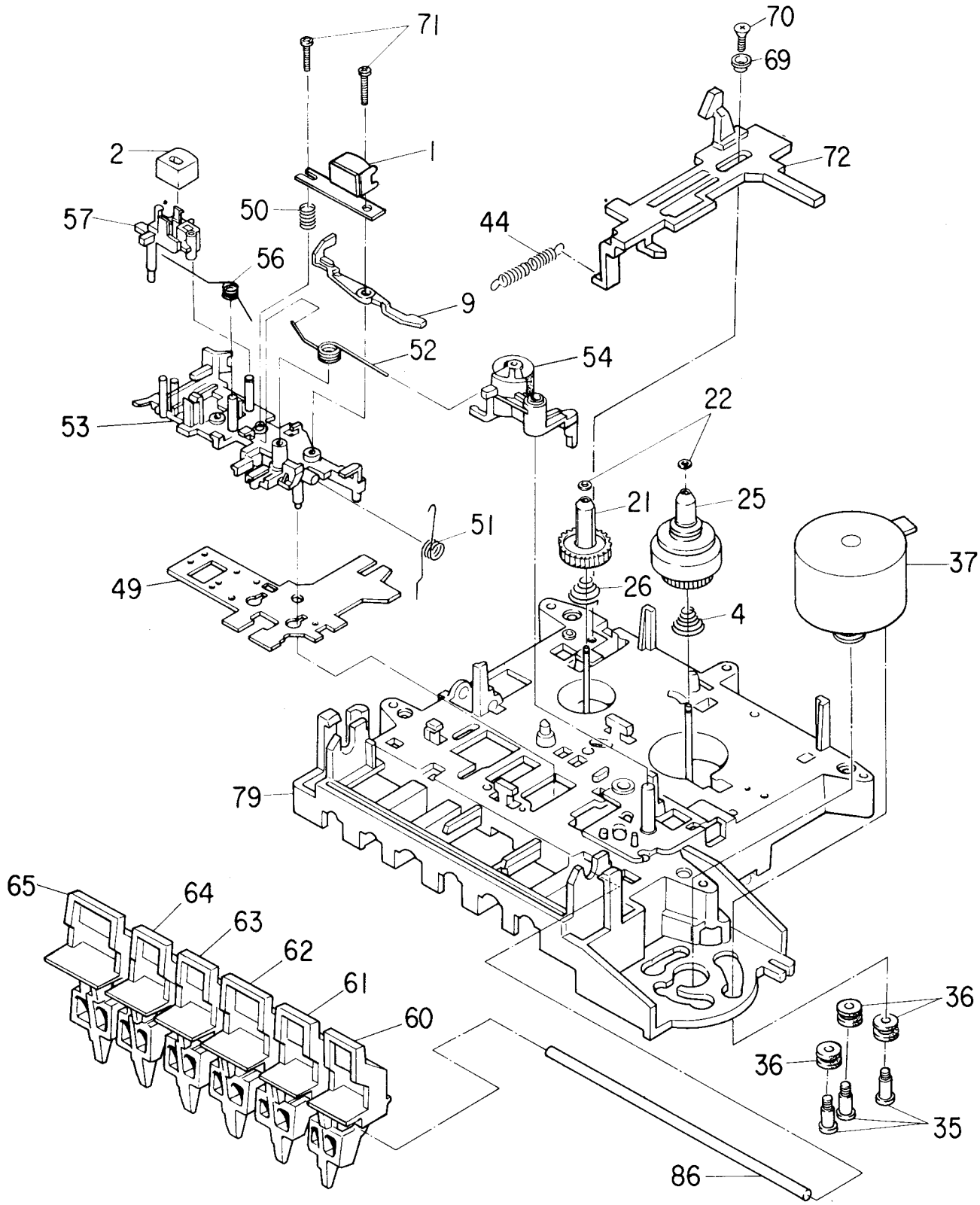


Figure 19.

NOTE:
Parts excluded in the parts list are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

9-2. MECHANISM EXPLODED VIEW (LOWER)

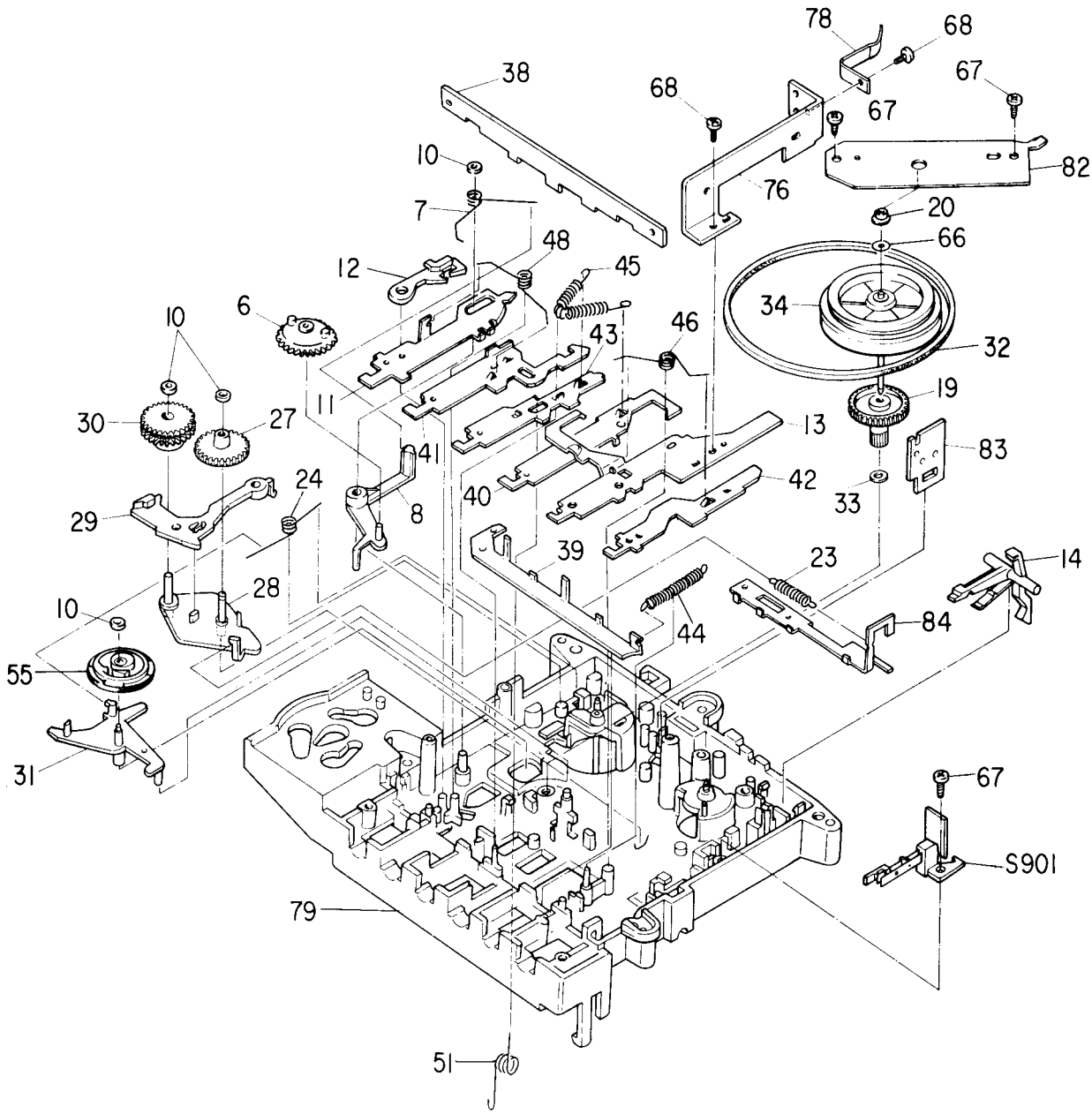


Figure 20.

NOTE:
Parts excluded in the parts list are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

10. CABINET EXPLODED VIEW

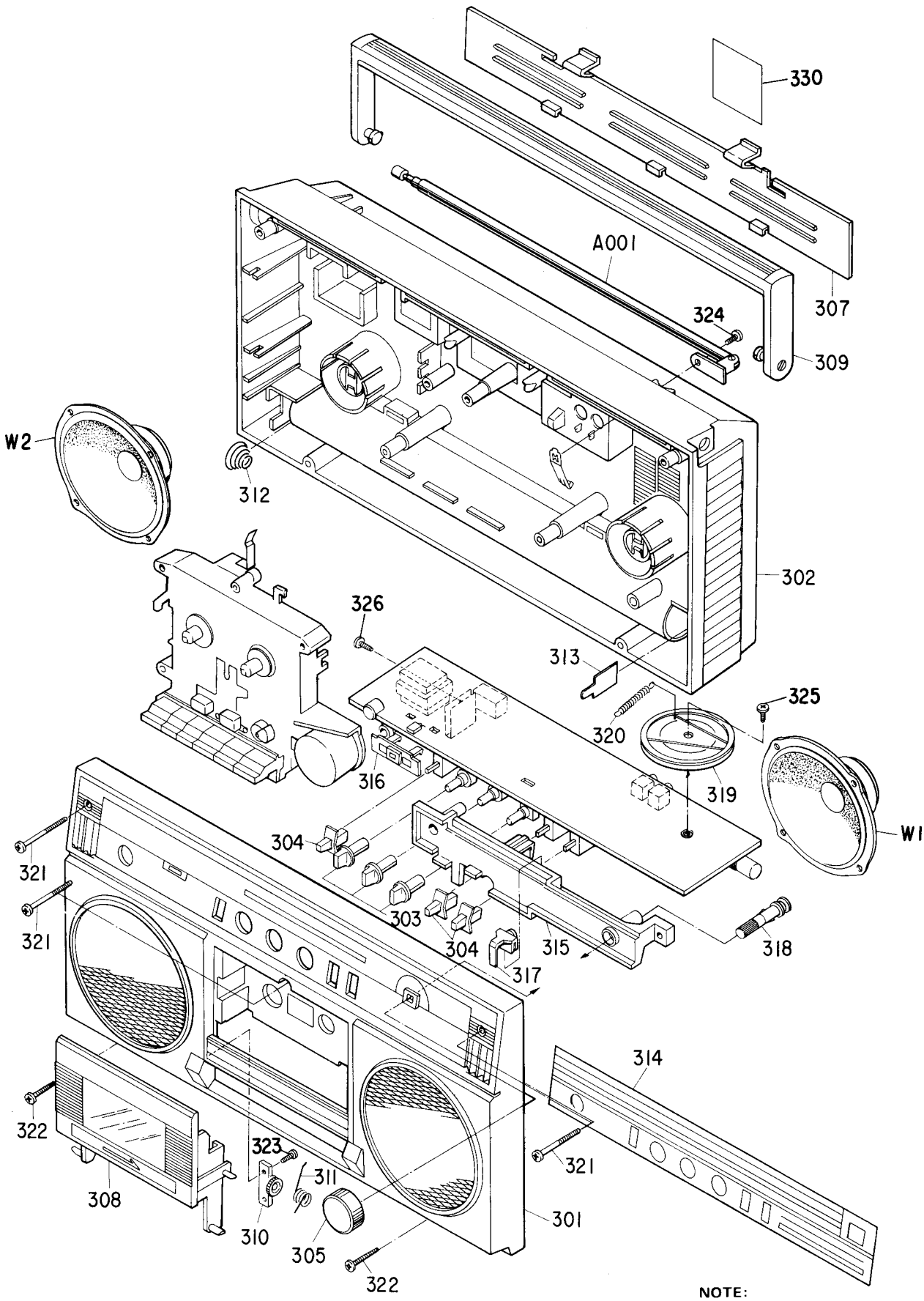


Figure 21.

NOTE:
Parts excluded in the parts list are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

12. PARTS LIST

Symbol No.	Part No.	Description
		CASSETTE MECHANISM PARTS
1	22217438	Head, Record/Playback
2	22218240	Head, Erase
4	25777055	Spring, Back Tension
6	25756247	ASO Gear
7	25773367	Spring, ASO Lever
8	25782440	ASO Lever
9	25782427	Lever, Detector
10	25783239	Bushing
11	25741852	Operation Plate, Pause
12	25784160	Lever, Pause Lock
13	25749013	Operation Plate, Record
14	25782444	Lever, Record Lock
19	25756270	Gear, Flywheel
20	25725340	Holder, Flywheel
21	25754386	Reel Plate, Supply
22	25764549	Washer
23	25776400	Spring
24	25773543	Spring
25	25712392	Reel Plate, Take-up
26	25777237	Spring, Back Tension
27	25756179	Gear, High-Speed
28	25782441	Lever, Rewind
29	25782442	Lever, Fast Forward
30	25791353	Gear Ass'y, High-Speed
31	25783238	Mtg. Plate, Take-up Idler
32	25755497	Belt, Drive
33	25766043	Washer
34	25717486	Flywheel Ass'y
35	22707747	Screw, Special, Motor
36	25761327	Cushion, Motor
37	25791545	Motor Ass'y
38	25732357	Stop Plate
39	25749010	Slider, Lock
40	25749012	Operation Plate, Rewind
41	25749011	Operation Plate, F.F.
42	25741865	Operation Plate, Stop
43	25741844	Operation Plate, Play
44	25776331	Spring, Lock Slider
45	25776329	Spring, Operation
46	25773369	Spring, Operation
48	25773561	Spring, Operation
49	25749009	Head Slider
50	25777056	Spring, Azimuth
51	25773577	Spring, Head Slider
52	25773366	Spring, Pressure Roller
53	25783237	Head Mtg. Plate
54	25717480	Pressure Roller
55	25713547	Idler Ass'y, Take-up
56	25773544	Spring, Head Lever
57	25782428	Lever, Erase Head
60	25784135	Knob, Pause (S-TE, TU)
60	25784184	Knob, Pause (K-TE, TU, R-TU)
61	25784134	Knob, Fast Forward (S-TE, TU)
61	25784183	Knob, Fast Forward (K-TE, TU, IT, R-TU)
62	25784133	Knob, Play (S-TE, TU, IT)
62	25784182	Knob, Play (K-TE, TU, IT, R-TU)
63	25784132	Knob, Rewind (S-TE, TU, IT)
63	25784181	Knob, Rewind (K-TE, TU, IT, R-TU)
64	25784131	Knob, Record (S-TE, TU, IT)
64	25784180	Knob, Record (K-TE, TU, IT, R-TU)
65	25784130	Knob, Stop (S-TE, TU, IT)
65	25784179	Knob, Stop(K-TE,TU,IT,R-TU)
66	25766043	Washer, Flywheel
67	22707301	Screw, BID Hd., Tapping, 2.6d x 8mmℓ
68	22707350	Screw, BID Hd., 2.6d x 5mmℓ
69	25726659	Spacer
70	22707849	Screw, FLT Hd., Tapping, 2.6d x 10mmℓ
71	22707322	Screw, BID Hd., 2d x 10mmℓ
72	25782562	Slider, Eject
79	25791446	Main Chassis Ass'y
83	22191963	P.C. Board, Mechanism
84	25741845	Slider, Switch
		CABINET PARTS
301	25883358	Front Cabinet Ass'y (S-TE, TU, IT)
301	25883206	Front Cabinet Ass'y (K-TE, TU, IT)
301	25883944	Front Cabinet Ass'y (R-TU)
302	25883939	Back Cabinet Ass'y (S-TE, TU, IT)
302	25883941	Back Cabinet Ass'y (K-TE, TU, IT, R-TU)
303	25837964	Knob, Volume, Tone, Balance
304	25886160	Knob, Lever Switch, Band Function, Mode/Beat
305	25886199	Knob, Tuning
307	25883198	Battery Cover Ass'y (S-TE, TU, IT)
307	25883199	Battery Cover Ass'y (K-TE, TU, IT, R-TU)
308	25883202	Cassette Cover Ass'y
309	25815256	Handle Ass'y (S-TE, TU, IT)
309	25815257	Handle Ass'y(K-TE,TU,IT,R-TU)
310	25881764	Damper Ass'y
311	25778135	Spring, Cassette
312	22771355	Spring
313	25864166	Contact, Battery
314	25884233	Dial Plate
315	22714313	Frame, Tuner
316	22714328	Frame, LED
317	22741462	Cursor
318	22743309	Tuning Shaft

CAUTION: The ⚠ mark, the symbol No. circled with oval in the schematic diagram and the shaded area in the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list.

Symbol No.	Part No.	Description
319	22714310	Drum
320	25776709	Spring, Drum
321	22708006	Screw, LAX Hd., Tapping, 3d x 35mmℓ
322		Screw, DTBID Hd., Tapping, 3d x 20mmℓ, BLK
323	22707802	Screw, DTBID Hd., Tapping, 3d x 12mmℓ
324	22707801	Screw, DTBID Hd., Tapping, 3d x 12mmℓ
325	22707473	Screw, BID Hd., 2.6d x 6mmℓ
326	22707910	Screw, DTBID Hd., Tapping, 3d x 6mmℓ
330	25809210	Nameplate (IT)
	TRANSISTORS, ICS & DIODES	
Q001	B0325502	IC, TA7358AP
Q002	A6332440	Transistor, 2SC2458-GR
Q101	B0358070	IC, TA7757P
Q201	B0325350	IC, TA7343P
Q301	B0319970	IC, TA7233P
Q401	B0356695	IC, TA7668BP
Q402, 501	A6332440	Transistor, 2SC2458-GR
Q901	A6319300	Transistor, 2SC1959N-Y-Y/O
D001, 202	A7160570	Diode, 1SS176
D901	A8603110	Diode, LED, TLR205
D902	A7110023	Zener Diode, 05Z5.1
⚠ D903, 904, 905, 906	A7978380	Diode, S5277B
	COILS & TRANSFORMERS	
L003	22294544	Coil, FM Ant.
L004	22294543	Coil, FM Oscillator
L005	22265821	IF Transformer, FM
L101	22291188	Coil, Choke, 1.5μH
L102	22282251	Coil, Antenna, SW
L103, 104	22242949	Coil, Antenna, MW/LW
L105	22294544	Coil, Choke
L106	22285321	Coil, SW Oscillator
L107	22245385	Coil, MW Oscillator
L108	22245389	Coil, LW Oscillator
L109	22264837	IF Transformer, AM
L110	22265873	IF Transformer, FM DET
L111	22266397	IF Transformer, AM DET
L501	22235227	Coil, Bias Oscillator, Tape
Z102	22241066	Coil, Trap
⚠ T901	22224340	Power Transformer (TU)
⚠ T901	22224217	Power Transformer (TE, IT)
	ELECTRICAL PARTS	
A001	22124711	Rod Antenna
W1, 2	22152498	Speaker, SP-12S7K
Z101	22153299	Filter, Ceramic, FM
G401	22154233	Microphone, Built-in

Symbol No.	Part No.	Description
S1, 2	22196449	Switch, Lever, Band, Function
S3	22196295	Switch, Lever, Mode/Beat
S4	22196233	Switch, Slide, Record/Playback
S901	22195839	Switch, Leaf, Power ON-OFF
J301	22198015	Jack, 3.5mmd, Headphone
J401, 402	22198016	Jack, 3.5mmd, EXT. Mic.
J403	22167997	Jack, DIN, 5P
⚠ J901	22169080	AC Socket, 2P (TU)
⚠ J901	22169062	AC Socket, 2P (TE, IT)
⚠ F901	22144387	Fuse, 800mA/250V (TE, IT)
⚠ F901	22144513	Fuse, 800mA/250V (TU)
EP02	22165047	Holder, Fuse
	CAPACITORS	
	Voltage Ratings of Ceramic and Plastic Film Capacitor are 50V DC unless otherwise noted.	
	D=±0.5pF, J=±5%, K=±10%, M=±20%, Z=+80–20%	
	Abbreviations: CD = Ceramic Disk, PF = Plastic Film EL = Electrolytic	
C001, 002, 003, 004, 005, 006, 009, 010	22308235	Variable Capacitor
C007/011	22309183	Trimmer, MW Ant./Osc.
C008/012	22309184	Trimmer, LW Ant./Osc.
C013	22361150	CD, 15pF, J, 50V
C014	22361560	CD, 56pF, J, 50V
C015	22361180	CD, 18pF, J, 50V
C017	22362391	CD, 390pF, K, 50V
C018	22361509	CD, 5pF, D, 50V
C019	22361180	CD, 18pF, J, 50V
C020	22360136	CD, 33pF, J, 50V
C021	22360141	CD, 22pF, J, 50V
C022	22361309	CD, 3pF, D, 50V
C023, 024	22362391	CD, 390pF, K, 50V
C025	22349472	CD, 4700pF, K, 50V
C026	22362391	CD, 390pF, K, 50V
C101	22361330	CD, 33pF, J, 50V
C102	22361100	CD, 10pF, D, 50V
C103	22361609	CD, 6pF, D, 50V
C104	22361820	CD, 82pF, J, 50V
C106	22342103	CD, 0.01mfd, Z, 50V
C107	22349392	CD, 3900pF, K, 50V
C108	22361270	CD, 27pF, J, 50V
C109	22321016	PF, 360pF, J, 50V
C110	22361150	CD, 15pF, J, 50V
C111	22321048	PF, 270pF, J, 50V
C112	22321164	PF, 220pF, J, 50V
C113	22361180	CD, 18pF, J, 50V
C114	22485220	EL, 22mfd, M, 16V
C115	22488478	EL, 0.47mfd, M, 50V
C116	22349102	CD, 1000pF, K, 50V
C117	22342103	CD, 0.01mfd, Z, 50V
C118	22483470	EL, 47mfd, M, 10V

Symbol No.	Part No.	Description
C119	22342103	CD, 0.01mfd, Z, 50V
C120	22483470	EL, 47mfd, M, 10V
C121	22349102	CD, 1000pF, K, 50V
C122	22360484	CD, 0.047mfd, Z, 50V
C201	22488478	EL, 0.47mfd, M, 50V
C202	22488339	EL, 3.3mfd, M, 50V
C203	22488109	EL, 1mfd, M, 50V
C204	22321057	PF, 1000pF, J, 50V
C205	22488339	EL, 3.3mfd, M, 50V
C207, 208	22360328	PF, 0.015mfd, M, 25V
C209, 210	22342473	CD, 0.047mfd, Z, 50V
C211, 212	22360327	PF, 0.01mfd, M, 25V
C301, 302	22342473	CD, 0.047mfd, Z, 50V
C307, 308	22488478	EL, 0.47mfd, M, 50V
C309, 310	22485220	EL, 22mfd, M, 16V
C311, 312	22483470	EL, 47mfd, M, 10V
C313	22485220	EL, 22mfd, M, 16V
C315, 316	22371154	PF, 0.15mfd, J, 50V
C317, 318	22482471	EL, 470mfd, M, 6.3V
C319	22485222	EL, 2200mfd, M, 16V
C401	22342103	CD, 0.01mfd, Z, 50V
C402	22483470	EL, 47mfd, M, 10V
C403, 404	22349332	CD, 3300pF, K, 50V
C405, 406	22488339	EL, 3.3mfd, M, 50V
C407, 408	22349152	CD, 1500pF, K, 50V
C409, 410	22349222	CD, 2200pF, K, 50V
C411, 412	22483470	EL, 47mfd, M, 10V
C413, 414	22349472	CD, 4700pF, K, 50V
C415, 416	22488339	EL, 3.3mfd, M, 50V
C417	22483101	EL, 100mfd, M, 10V
C418	22349472	CD, 4700pF, K, 50V
C419, 420	22488338	EL, 0.33mfd, M, 50V
C501	22362101	CD, 100pF, K, 50V
C502	22362391	CD, 390pF, K, 50V
C503	22371152	CD, 1500pF, J, 50V
C504	22371392	CD, 3900pF, J, 50V
C505	22483470	EL, 47mfd, M, 10V
C901	22483331	EL, 330mfd, M, 10V
C904, 905	22342103	CD, 0.01mfd, Z, 50V
C906	22360484	CD, 0.047mfd, Z, 50V
C907	22485221	EL, 220mfd, M, 16V

RESISTORS

1. **Resistors are Fixed Carbon Film 1/6W, ±5% unless otherwise noted.**
   K = 1000, M = 1000000
2. **PR is short for the printed resistor circuit.**
   If replacement of the resistor in PRC is required, please use the substitutional fixed carbon film resistor of 1/6W, ±5% according to the following list.

R001	22584153	15K ohm (PRC)
R002	22584180	18 ohm
R003	22584331	330 ohm (PRC)
R004	22584102	1K ohm (PRC)
R005	22584821	820 ohm (PRC)
R101, 102	22584153	15K ohm
R103	22584682	6.8K ohm
R104	22584470	47 ohm
R105	22584121	120 ohm (PRC)
R106, 107	22584104	100K ohm (PRC)
R108	22584331	330 ohm (PRC)
R111	22584470	47 ohm
R201	22584102	1K ohm (PRC)
R202	22658761	Semi-fixed Variable, 10K-B, Free Run
R203	22584562	5.6K ohm (PRC)
R204	22584224	220K ohm (PRC)
R205, 206	22584332	3.3K ohm (PRC)
R207, 208	22584224	220K ohm (PRC)
R209, 210	22584152	1.5K ohm (PRC)
R211	22584681	680 ohm (PRC)
R301, 302	22584472	4.7K ohm (PRC)
R303	22651582	Variable Resistor, 50K-B, Balance
R304	22651583	Variable Resistor, 50K-A, Tone
R305, 306	22584472	4.7K ohm (PRC)
R307	22651584	Variable Resistor, 50K-A, Volume
R308	22584101	100 ohm (PRC)
R309, 310	22584151	150 ohm (PRC)
R311, 312	22584101	100 ohm, 1/6W
R313, 314	22584102	1K ohm (PRC)
R401	22584102	1K ohm (PRC)
R402	22584225	2.2M ohm
R403, 404	22584472	4.7K ohm
R405, 406	22584153	15K ohm (PRC)
R407, 408	22584101	100 ohm (PRC)
R409, 410	22584223	22K ohm (PRC)
R411, 412	22584103	10K ohm (PRC)
R413	22584471	470 ohm (PRC)
R415, 416	22584391	390 ohm (PRC)
R417, 418	22584471	470 ohm (PRC)
R501	22584121	120 ohm (PRC)
R502	22584683	68K ohm (PRC)
R503	22584470	47 ohm
R901	22584100	10 ohm
R902	22584471	470 ohm (PRC)
R903	22584221	220 ohm (PRC)

ACCESSORIES

AC01	22904465	Owner's Manual (TE, IT)
AC01	22904466	Owner's Manual (TU)
⚠ AC02	22176616	Power Supply Cord (TE, IT)
⚠ AC02	22176626	Power Supply Cord (TU)